

IN THE CLAIMS:

Please amend the claims as follows:

Claims 1 and 2 (cancelled).

3. (currently amended) An apparatus for at least partially normalizing an axial flow velocity distribution of a flow of cooling air supplied by a fan to a locomotive dynamic braking grid resistor stack, the apparatus comprising:

a duct bounding the flow of cooling air; and

a flow turning vane comprising a corner member disposed proximate a corner of the duct and disposed remote from a center portion of the flow of cooling air and spaced apart from the duct to allow a portion of the flow of cooling air to pass between the corner member and the corner, the corner member extending into a relatively higher velocity annular portion of the flow of cooling air and having a downstream portion disposed closer to the corner than an upstream portion and disposed remote from a center portion of the flow of cooling air for directing a portion of the cooling air from the relatively higher velocity annular portion of the flow of cooling air into a relatively lower velocity corner portion of the flow of cooling air without restricting the center portion of the flow of cooling air.

4. (previously amended) The apparatus of claim 3, wherein the flow turning vane further comprises a V-shaped corner member having a first portion disposed in the relatively higher velocity annular portion and having a second portion extending toward the corner.

5. (previously amended) The apparatus of claim 3, further comprising:
an annular member disposed within the duct for directing a portion of the cooling air from the relatively higher velocity annular portion of the flow of cooling air into the center portion of the flow of cooling air; and wherein
the corner member is connected to the duct and the annular member is connected to the corner member in order to provide support for both the corner member and the annular member without restricting the center portion of the flow of cooling air.

Claim 6 (cancelled).

7. (previously amended) The apparatus of claim 5, wherein the annular member comprises a first annular member, and further comprising:
a second annular member disposed in the flow of cooling air downstream of the first annular member and upstream of the resistor stack, the second annular member cooperating with the first annular member for directing the portion of the cooling air from the relatively higher velocity annular portion of the flow of cooling air into the center portion of the flow of cooling air with reduced turbulence in the flow of cooling air than would be created by directing the same portion of the cooling air into the center portion of the flow of cooling air with only a single annular member.

8. (currently amended) A cooling apparatus for a locomotive dynamic brake resistor grid stack, the cooling apparatus comprising:

a fan for inducing a flow of air having a cross-section with a relatively higher velocity annular area and a relatively lower velocity center area;

a duct for directing the flow of air away from the fan to an inlet of a locomotive dynamic brake resistor grid stack; and

a flow directing vane disposed within the duct for directing a portion of the flow of air from the relatively higher velocity annular area into a corner region of the duct without restricting the relatively lower velocity center area to at least partially normalize a flow velocity distribution of the air entering the inlet of the grid stack;

wherein the flow directing vane is spaced apart from a corner of the duct and extends into the annular area with a downstream portion being disposed closer to the corner than an upstream portion for directing the portion of air from the annular area into the corner region.

9. (original) The cooling apparatus of claim 8, wherein the fan comprises a mixed flow fan.

10. (previously amended) The cooling apparatus of claim 8, further comprising an annular member connected to the flow directing vane for directing a portion of the flow of air from the relatively higher velocity annular area to the relatively lower velocity center area.

11. (previously amended) The cooling apparatus of claim 10, wherein the annular member comprises a first annular member, and further comprising a second annular member disposed within the duct and cooperating with the first annular member to direct the portion of the flow of air from the relatively higher velocity annular area to the center area with reduced turbulence in the flow of air than would be created by directing the same portion of the air into the center area with only a single annular member.

Claim 12 (cancelled).

13. (currently amended) A locomotive dynamic braking grid package comprising:

a plurality of electrical resistors packaged in a grid stack;
a fan producing a flow of cooling air having a relatively higher velocity annular portion and a relatively lower velocity center portion;
a duct for directing the flow of cooling air from the fan to the grid stack for cooling the plurality of electrical resistors; and
a flow turning vane disposed within the duct remote from the center portion for directing a portion of the cooling air from the higher velocity annular portion into a corner area of the duct without restricting the relatively lower velocity center portion to at least partially normalize an axial flow velocity profile of the cooling air as it enters the grid stack;

wherein the flow turning vane is spaced apart from a corner of the duct and extends into the annular portion of the flow of cooling air with a downstream portion being disposed closer to the corner than an upstream portion for directing the portion of the cooling air from the higher velocity annular portion into the corner area.

14. (original) The locomotive dynamic braking grid package of claim 13, wherein the fan comprises a mixed flow fan.

Claims 15-18 (cancelled).

19. (currently amended) The apparatus of claim 3, wherein the flow turning vane further comprises two interconnected flat plates forming a V-shape, each plate connected to the duct at one end and connected to the other plate at an opposed end and having a downstream portion disposed closer to the corner than an upstream portion and disposed at an angle relative to a longitudinal axis of the duct to become closer to the duct as the cooling air progresses downstream along the axis for directing athe portion of the cooling air from the relatively higher velocity annular portion of the flow of cooling air into the relatively lower velocity corner portion of the flow of cooling air without imparting tangential velocity to the flow of cooling air.

20. (currently amended) The cooling apparatus of claim 8, wherein the flow directing vane further comprises two interconnected flat plates forming a V-shape, each plate connected to the duct at one end and connected to the other plate at an opposed end and having a downstream portion disposed closer to the corner than an upstream portion and disposed at an angle relative to a longitudinal axis of the duct to become closer to the duct as the air progresses downstream along the axis for directing athe portion of the flow of air from the relatively higher velocity annular area into the corner region without imparting tangential velocity to the flow of air.

21. (currently amended) The locomotive dynamic braking grid package of claim 13, wherein the flow turning vane further comprises two interconnected flat plates forming a V-shape, each plate connected to the duct at one end and connected to the other plate at an opposed end and having a downstream portion disposed closer to the corner than an upstream portion and disposed at an angle relative to a longitudinal axis of the duct to become closer to the duct as the cooling air progresses downstream along the axis for directing athe portion of the cooling air from the higher velocity annular portion into the corner area without imparting tangential velocity to the flow of cooling air.

Claims 22 and 23 (cancelled).